

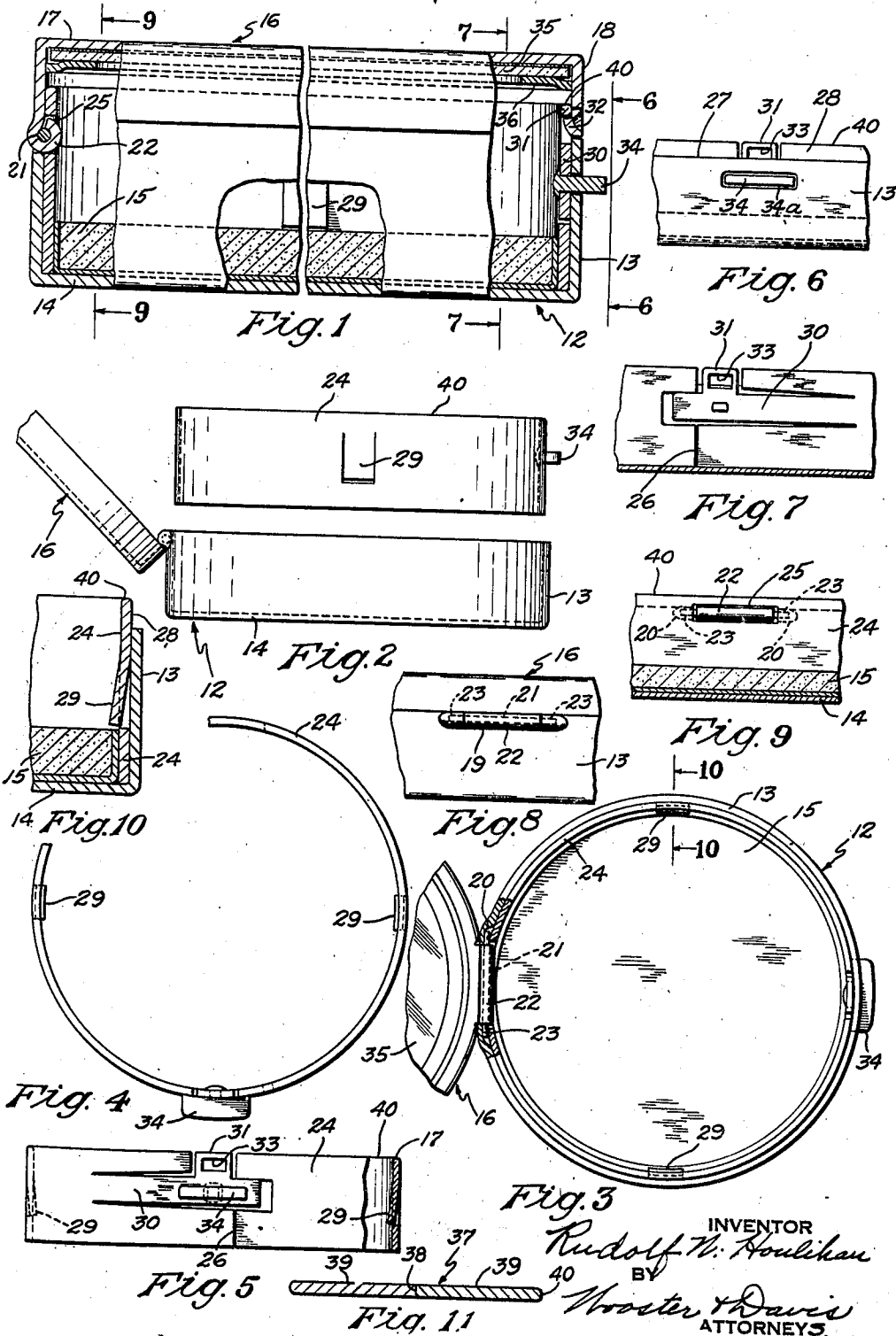
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BOX

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BOX

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This invention relates to a box having a hinged cover, such for example as a vanity or similar box, and has for an object to provide an improved means for securing the cover to the body of the box which may be easily and quickly assembled, and which if desired may be disassembled for refinishing or repairing without breaking the hinge structure.

It is also an object to provide a construction which improves the appearance of the box and simplifies its manufacture.

Another object is to provide a construction which does not require reduction of the upper edge of the body to telescope with and form a seat for the cover in order that the outer walls of the cover and the body may be flush, and also doing away with the necessity of using a paper or other lining which would be required to fill in under such reduced portion.

With the foregoing and other objects in view I have devised a construction as illustrated in the accompanying drawing forming a part of this specification. It is however to be understood that I am not limited to the exact details and arrangement shown but may employ various changes and modifications within the scope of the invention.

In this drawing:

Fig. 1 is a partial side elevation and partial section of the box complete;

Fig. 2 is a side elevation with the cover open and showing the insert removed and raised above the body;

Fig. 3 is a top plan view of the body with the cover open and parts shown in section to more clearly show the construction;

Fig. 4 is a top plan view of the insert member;

Fig. 5 is a side elevation thereof with one side portion shown in section;

Fig. 6 is a detail looking as indicated by lines 6—6 of Fig. 1;

Fig. 7 is a detail looking in the direction indicated by lines 7—7 of Fig. 1 but with the cover and compact removed;

Fig. 8 is a rear elevation of the hinge;

Fig. 9 is a section of the body looking toward the hinge as indicated by line 9—9 of Fig. 1;

Fig. 10 is a section through one edge of the body substantially on line 10—10 of Fig. 3; and

Fig. 11 is a section of a strip of metal showing how the insert member may be formed therefrom.

The box includes a body 12 comprising a cup shaped member, usually of metal although it may be of other material. In the drawing it is shown as being substantially circular with substantially cylindrical side walls 13, although I am not limited to this shape as other shapes may be employed if desired. This body also includes a bottom wall 14 on which rests the powder compact 15. The

cover 16 is of similar inverted cup shaped construction having a top wall 17 and side walls 18. The cover is hinged to the body member by an improved hinged construction. Adjacent the top edge of the side wall 13 an opening 19 is formed, and the metal is pressed outwardly at the opposite ends of this opening to form recesses 20. Carried by the side wall of the cover is a hinge pin 21, and a convenient way of securing this hinge pin to the cover is to form a loop 22 about the pin. This may be wrapped tightly about the pin so as to hold it in position, and the pin is longer than the loop to form projecting end portions 23 to seat in the recesses 20.

To retain the projecting ends of the pin in the recesses an insert member 24 is provided which telescopes into the side walls 13 of the body as shown in Fig. 1 and extends down to and rests on the bottom wall thereof. This insert extends over the projecting ends 23 of the hinge pin as shown in Fig. 3 and retains these ends in the recesses. To accommodate the loop 22 of the hinge this insert may have an elongated opening 25 as shown in Figs. 1 and 3. The insert 24 in the present construction comprises a ring of flat resilient strip metal so that it tends to expand to press against or frictionally engage the inner side of the side walls 13 to retain it in position. It is preferably made non-continuous or as a split ring so the ends are disconnected as indicated at 26 to permit this expanding action and also to permit the insert ring to be contracted or compressed to a smaller diameter to permit easy insertion in or removal from the body.

This insert ring also extends above the top edge 27 of the side walls 13 to form a flange 28 telescoping with the side walls 18 of the cover when the cover is in closed position, so that the cover may be of the same diameter or size as the body and the outer walls of the two will be flush when the cover is closed. This construction and arrangement obviates the necessity of reducing the top edge portion of the side walls 13 to form this flange and seat for the cover. It will be seen this flange is provided automatically by placing the insert rim in position in the body. The ring also extends down to the bottom wall 14 and therefore no paper lining or other filling member is required, as would be the case were the top edge portion of the side wall reduced, in order to bring the effective internal diameter of the side walls to flush with the inner diameter of the reduced portion. Such a lining is required in the old construction because the compact 15 must be of a diameter to pass through the reduced flange portion, and as the side walls of the body are of larger diameter than the reduced flange portion, this would mean that there would be a space around the periphery of the compact between it and the side walls of the body requiring use of

the lining. In the present construction the side walls are not reduced, the insert itself forming the flange 28, and it extends the full height of the side walls 13 so as to fill in the space between the compact and these side walls 13.

This insert may also be used to retain the compact in the box. Thus in one or more sides of the insert an ear 29 may be cut from the walls of the insert and bent inwardly so as to lie over the edge of the compact as shown in Fig. 10 to retain it in position. This ear will yield outwardly to permit the compact to slide down by it and then will move inwardly over the compact to retain it in position. To insert the compact, all that is necessary is to slide it down past the ear or ears 29. This also permits removal of the compact for insertion of a new one.

The insert 24 also provides convenient means for forming the catch to hold the cover in closed position. Thus the side wall of the insert may be cut to form the spring tongue 30 having a loop 31 to receive a lug 32 cut and pressed inwardly from the side wall 18 of the cover. As the cover is closed this cover passes down over the top bar of the loop 31, the tongue 30 yielding to permit this, and then it snaps back so that the lug 32 is held by the shoulder 33 in the opening in the loop 31. To permit easy release of this catch a thumb piece 34 may be mounted on the tongue 30 and project through an elongated opening 34a in the side wall 13. Pressing inwardly on this thumb piece will remove the bar 31 from the lug 32 releasing the cover.

The cover may carry on its inner surface a mirror 35 held therein by any suitable means such as an annular ring 36 frictionally engaging the side walls 18.

In manufacturing the insert ring 24 may be made from a rolled strip of metal 37 as indicated in Fig. 11 of a width equal to twice the width of the insert 24. When slit longitudinally at its center as indicated at 38 this will provide two strips 39 each of the proper width for an insert ring 24, leaving the outer naturally rounded edges 40 of the roller strip to provide the top edge of the insert. Thus without any separate operations a rounded top edge is provided for the exposed edge of the insert so that they are not sharp to cut anyone using the box.

It will be evident from the above that this construction and arrangement gives a better looking hinge and all around job because the hinge is practically hidden and projects only slightly beyond the outer walls of the box. This gives a much better appearance and simplifies manufacture as it gives a greater ease of assembly. In assembling, all that is necessary is to place the projecting end portions 23 of the hinge pin in the recesses 20 and then insert the resilient member 24. The spring catch 30 can be made out of component parts of the insert member rather than additional parts which must be separately mounted, thus simplifying and reducing the manufacturing operations. Another advantage is that the insert member can be made out of better spring material than the drawn box. As the box is blanked and drawn it has to be made out of relatively soft material which would not be so adaptable for the insert member. Another advantage is that in refinishing or repairing it is not necessary to open the hinge loop 22 to take the box apart and remove the cover. All that is necessary is to

remove the insert ring 24 when the cover may be easily removed from the body, and no part has to be bent or distorted to accomplish this. After refinishing or repairing the box may then be easily and quickly reassembled as before. In old constructions commonly used it is necessary to open the hinge loop to take the box apart. This is apt to break or crack the metal so that the part on which the hinge is formed has to be thrown away and a new part provided.

Having thus set forth the nature of my invention what I claim is:

1. A box of the character described comprising a body including a bottom wall and upright side walls about the periphery thereof provided with a pair of spaced recesses on the inner side thereof adjacent the top edge, a cover having a hinge comprising projecting pin portions seated in said recesses, and a resilient split insert ring at the inner side of the side walls comprising a substantially flat strip extending from the bottom of the body to a short distance above the top edge of the side walls to form a flange to telescope with the cover when it is in closed position, said ring extending over said recesses engaging and retaining the projecting pin portions therein to secure the cover to the body and tending to expand to frictionally engage the side walls thereof.

2. A box of the character described comprising a body including a bottom wall and upright side walls about the periphery thereof, said side walls provided with a pair of spaced recesses on the inner side thereof adjacent the top edge, a cover having a hinge comprising a loop wrapped around a pin having projecting end portions seated in said recesses, and a resilient split insert ring at the inner side of the side walls comprising a substantially flat strip substantially covering the side walls and extending substantially throughout the periphery thereof, said ring extending over said recesses retaining the projecting pin portions therein and provided with an elongated recess receiving the hinge loop, said ring also extending above the top edge of the side walls to form a reduced flange telescoping within the cover when the cover is in closed position and tending to expand to frictionally engage the side walls of the body.

3. A box of the character described comprising a body including a bottom wall and upright side walls about the periphery thereof provided with a pair of spaced recesses on the inner side thereof adjacent the top edge and an opening in the side wall opposite said recesses, a cover having a hinge comprising projecting pin portions seated in said recesses, and a resilient split insert ring at the inner side of the side walls comprising a substantially flat strip extending from the bottom of the body to a short distance above the top edge of the side walls to form a flange to telescope with the cover when in closed position, said ring extending over said recesses retaining the projecting pin portions therein to secure the cover to the body and tending to expand to frictionally engage the side walls thereof, a spring tongue integral with the insert, cooperating catch means on the tongue and cover to retain the cover in closed position, and a finger piece on the tongue for releasing said catch means and extending through said opening and retaining the insert in the body.

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